



Coastal Community Resilience: The Role of Social Empowerment Programs in Encouraging the Welfare of Communities Affected by Tidal Floods in Indramayu

Rezaldi Hafidz Fadillah¹, *Dr. H. M. Ishaq, M.Pd.²

State University of Malang, Jl. Semarang No. 5 Malang, East Java, Indonesia

*Author of correspondence, Email: ishaqmaula@gmail.com

Abstract

Tidal Flooding Sea water (rob) is a pattern of sea level fluctuations influenced by the gravitational pull of celestial bodies, especially the Moon and the Sun, on the mass of sea water on Earth. This is triggered by abrasion on the coast that begins to erode and leaves sea water increasingly close to settlements. Eretan Kulon Village, Kandanghaur District, Indramayu Regency is one of the villages in Indonesia that is threatened by frequent tidal flooding. The impact of tidal flooding is deeply felt by the community because it disrupts life. The Ministry of Social Affairs of the Republic of Indonesia is present in collaboration with the Indramayu Regency Government, Baznas, and Habitat for Humanity in providing assistance to affected communities, not only housing assistance, but also social empowerment assistance in the form of training conducted in several stages, including: 1) Assessment; 2) Technical Skills Training Classes; 3) Interest-Based Social Learning; 4) Experiential Learning (Networking, Business Marketing) to support the skills of affected communities so they can regain their independence.

Keywords: keyword 1; tidal flooding 2; empowerment 3; training

1. Introduction

Tidal flooding is a flood caused by high tides that inundate land. According to Sunarto (2003), tidal flooding is a pattern of sea level fluctuations influenced by the gravitational pull of celestial bodies, especially the Moon and the Sun, on the mass of seawater on Earth. This tidal flood will often hit areas whose surface is lower than sea level (Sahana, 2021). The height of the tidal flood is always changing and causes residents' homes to be inundated by seawater, forcing them to evacuate (Dzulfaqor, nd). Tidal flooding in coastal areas will be worse with high rainfall intensity, flash flooding, or local flooding caused by poorly maintained drainage channels (Asyiwati et al., 2023).

This has a very large impact, especially on communities living in coastal areas. According to Sahana (2021), there are several factors that cause tidal flooding, including: 1) Global warming; 2) Excessive use of groundwater; 3) Deforestation of mangrove forests and mangrove forests; 4) Topographic conditions of an area; 5) Changes in the use of swamp land, lakes, rice fields and so on; 6) The phenomenon of land subsidence; 7) Narrowing of river banks; 8) Throwing garbage in rivers; 9) Poorly maintained drainage systems. Tidal flooding is expected to continue to increase both in frequency and size in the future.

The impact of tidal flooding is deeply felt by the community because it disrupts life. The impacts felt by the community are quite serious, such as: 1) damage to residents' homes; 2) damage to public facilities; 3) itching and disruption to public health; 4) damage to valuables. This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License.

belonging to the community; 5) areas affected by tidal flooding will also look dirty because the tidal floodwater is mixed with household waste (Nurdiantoro & Arsandrie, 2020) .

Other impacts of flooding include disruption to people's daily activities, damage to infrastructure, and people losing their homes and livelihoods (Adi et al., 2022) . Eretan Kulon Village is one of the villages in Indonesia that is threatened by frequent tidal flooding. Toward the end of the year, the Eretan Kulon community was shocked by the tidal flood on New Year's Eve, December 31, 2022. This was the worst tidal flood ever recorded, destroying many homes and sweeping away their contents. Safe shelters such as the village hall and relatives' homes have become an alternative for affected residents to avoid subsequent tidal flooding. This is triggered by coastal abrasion, which is beginning to erode, leaving seawater increasingly close to their settlements. However, residents are reluctant and prefer to remain in their old homes on the coast (Asyiwati et al., 2023) .

Based on these problems, this research was conducted with several objectives, 1) To find out the steps taken by the local government in an effort to reconstruct the lives of communities affected by tidal floods; 2) To find out the resilience efforts of coastal communities in tidal flood disasters. The expected benefits of this research are, 1) To find out the steps taken by the government in reconstructing the lives of communities affected by tidal floods; 2) To find out the resilience efforts of coastal communities in tidal flood disasters.

2. Method

This research uses a qualitative research method with a case study research design to explore the role of social empowerment programs carried out by the Ministry of Social Affairs of the Republic of Indonesia in building resilience in coastal communities affected by tidal flooding in Indramayu. According to Cresswell & Poth (2018), the method aims to uncover the complex social context and multidimensional perspectives of stakeholders. Data collection techniques include 1) Semi-structured interviews and 2) Analysis of policy documents and official news from the Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia related to programs in Indramayu.

In-depth interviews were conducted using open-ended questions to explore the program's experiences, challenges, and impacts. This research employed a purposive sampling technique, defining the following criteria: 1) direct involvement in the empowerment program; 2) impacted by tidal flooding; and 3) beneficiaries of social empowerment assistance. This approach aligns with similar research on the coast of Central Java by Rahmawati et al. (2022), which emphasized the importance of involving local actors in resilience studies.

In this research, data sources were obtained through primary and secondary sources. Primary data came from observations and in-depth interviews. This was then reinforced with secondary data from journal articles, news reports, and relevant previous research. Secondary data was obtained from official reports from the Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia, news reports, and relevant journal articles. Thematic analysis was applied following the Braun & Clarke (2006) model, with the following stages: transcription, coding, theme categorization, and interpretation.

3. Results and Discussion

3.1. Result

The Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia is providing new hope for affected communities by initiating the Prosperous Fishermen's Village Program. According to the Ministry of Social Affairs of the Republic of Indonesia of the Republic

of Indonesia' official news website, 93 housing units were built in Eretan Kulon Village for beneficiary groups (KPM) who previously lived near the coast and were victims of tidal flooding. Each house measures 36 square meters and has a land area of 60 square meters. The construction of the Prosperous Fishermen's Village is the result of a collaboration between the Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia, the Indramayu Regency Government, Baznas, and Habitat for Humanity.

According to the Director General of Social Empowerment (Dirjen Dayasos), Mira Riyati Kurniasih, this program is part of the Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia' efforts to accelerate poverty reduction with a total budget of IDR 9.3 billion. Not only is the construction of houses and infrastructure provided to beneficiary groups (KPM), but a social empowerment program has also been prepared to support life skills.

Social empowerment carried out by the Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia in collaboration with the Bogor Agricultural Institute (IPB) as a trainer instructor who is also accompanied by the Indramayu Regency Social Service and Social Pillars (TKSK, PSM and PKH). Based on the results of interviews with Mr. Koernia Setiawan from the Directorate of Community Empowerment, this social empowerment activity is in the form of training held with several stages including; 1) Assessment ; 2) Technical Skill Class Training ; 3) Social Learning Based on Interest; 4) Experiential Learning (Networking , Business Marketing). These stages are the initial steps in the empowerment process carried out with a time span as listed in table 1.1.

Table 1.1. Project Timeline for Empowerment of the Prosperous Fishermen's Village Program

No.	Stages	Date
1.	Assessment	October 3rd Week and November 4th Week
2.	Technical Skills Training Class	December 1st and 2nd Week
3.	Social Learning Based on Interests	December 2nd and 3rd Week
4.	Experiential Learning (Networking , Business Marketing).	December

In the assessment stage , the results of training needs were obtained to support the economy of the affected communities, in the form of 1) Fish processing training (fish balls, fish dim sum, crackers and nuggets); 2) eco-print batik training; 3) welding training; 4) hotel sandal making training; 5) digital marketing training; 6) entrepreneurial motivation. The target of the empowerment program is the wives of 93 beneficiary groups (KPM) of the Sejahtera fishing village, they are taught how to sort, process, and cook the fish processing training into ready-to-eat products. The fish used in the fish processing training is mackerel based on the results of the assessment conducted by IPB instructors.



Figure 1.1. Interview Documentation

The interview was conducted in the office of the Directorate of Community Empowerment on the fourth floor of the Ministry of Social Affairs of the Republic of Indonesia building. The Ministry of Social Affairs of the Republic of Indonesia has undertaken various efforts to provide assistance, including social assistance, social rehabilitation, and social empowerment.

3.2. Discussion

3.2.1. Reconstruction Efforts

The Ministry of Social Affairs of the Republic of Indonesia is committed to rebuilding the community life of fishermen in Eretan Kulon Village, together with the Indramayu Regency Government, Baznas, and Habitat for Humanity. The Ministry of Social Affairs of the Republic of Indonesia' development of the Prosperous Fishermen's Village aims to improve the social welfare of the community, which is a relocation of coastal settlements affected by tidal flooding, explained Mira Riyati Kurniasih, Director General of Social Empowerment at the Ministry of Social Affairs of the Republic of Indonesia.

Social Minister Saifullah Yusuf hopes that the community will benefit from the development and relocation of this Prosperous Fishermen's Village. The Ministry of Social Affairs of the Republic of Indonesia is not only developing public facilities and housing for the affected community, but also supporting economic independence through empowerment training. These recovery efforts include the Integrated Welfare House (RST), child- and elderlyfriendly parks, sports facilities, mosques, multi-purpose community halls, MSME outlets, craft centers, public toilets, housing assistance, empowerment assistance, basic necessities, and drainage and road construction. This assistance is intended to foster a sense of security and comfort for the community, who for years have been shrouded in fear and worry about the tidal floods that frequently destroy buildings and their contents.

3.2.2. Coastal community resilience

In this training program, each training participant is only allowed to choose one empowerment program according to their interests and needs. "The sustainability of this program does not only stop at providing skills through training, but there is assistance in the form of tenants located in the Z-Corner (business building)". There are eight tenants and three tenants are filled directly by Z-Corner in the form of; 1) Z-Chicken; 2) Z-Mart; 3) Z-Coffee. The other five tenants will be filled by the beneficiaries themselves. The Ministry of Social Affairs of the Republic of Indonesia ensures that the empowerment program runs until the beneficiaries

can be empowered through a follow-up scheme in the form of business capital assistance for training participants who are ready and truly want to be empowered through the training they have attended.

The marketing team has also prepared the use of social media to brand and market the participants' products. The product launch is still pending the housing construction process and the official handover of keys to the beneficiaries. From social media platforms like Instagram to a centralized website, managed by the IPB marketing team and the Ministry of Social Affairs of the Republic of Indonesia, the program supports the publication and marketing of the participants' products. The hope is that with this assistance, when the husbands return to sea to earn a living, the wives can contribute to the family economy through the training they received.

4. Conclusion

Tidal flooding is a flood caused by high tides that inundate land. The impact of tidal flooding is deeply felt by the community because it disrupts daily activities, damages infrastructure, and people lose their homes and livelihoods. Eretan Kulon Village is one of the villages in Indonesia that is threatened by frequent tidal flooding. The Ministry of Social Affairs of the Republic of Indonesia is present in collaboration with the Indramayu Regency Government, Baznas, and Habitat for Humanity in providing assistance to the affected community in the form of integrated Welfare Housing (RST) housing, child- and elderlyfriendly parks, sports facilities, mosques, multi-purpose community halls, MSME outlets, craft centers, drainage channels and roads, public toilets, household assistance, basic necessities, and social empowerment assistance. It is hoped that with this assistance, the community affected by tidal flooding can feel safe without worrying about the arrival of tidal flooding and can also rise again and be able to support their families through empowerment training provided by the Ministry of Social Affairs of the Republic of Indonesia.

References

- Adi, HP, Wahyudi, SI, & Mutamimah, M. (2022). Floating Market Innovation as an Adaptation to Tidal Flooding in Randusanga Village, Brebes. *Indonesian Journal of Community Services*, 4(2), Article 2. <https://doi.org/10.30659/ijocs.4.2.156-162>
- Asyiwati, Y., Oskar, J., & Azizah, AN (2023). Village Development in Adaptation to Tidal Flooding (Case Study: Eretan Wetan Village). *Journal of Engineering, Technology, and Science*, 7 (2), 100-107.
- Dzulfaqor, D., & Suharyani, ST (2024). Design of a Multi-Function Evacuation Center for Tidal Flood Disasters in Pekalongan Using a Contextual Architecture Approach (Doctoral dissertation, Muhammadiyah University of Surakarta).
- Ministry of Social Affairs of the Republic of Indonesia of the Republic of Indonesia (2022). Evaluation of the Tidal Flood Disaster Management Program on the Indramayu Coast. Jakarta: Kemosos Press
- Nurdiantoro, D., & Arsandrie, Y. (2020). The Impact of Tidal Floods on Settlements in Wonokerto District, Pekalongan Regency. *Proceedings (SIAR) of the Scientific Seminar on Architecture*, 286-295.
- Rahmawati, D., et al. (2021). Coastal Community Resilience: A Case Study of Community Adaptation Affected by Tidal Floods in West Java. *Journal of Social Sciences and Humanities*, 10(2), 145-160.
- Sahana, W. (2021). Handling of ROB Floods in Tanjungbalai City. *Proceedings of Dharmawangsa University*, 1, 43-46.
- Sunarto. 2003. Coastal Geomorphology: Coastal Dynamics. Faculty of Geography, Gadjah Mada University. Yogyakarta.